AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-2. (canceled)

3. **(currently amended)** An optical characteristic measuring apparatus for measuring [[the]] characteristics of devices under test having [[the]] a first optical transmission line letting light through only in [[one]] a first direction and [[the]] a second optical transmission line letting light through only in [[the]] a second direction opposite to said [[one]] first direction, said apparatus comprising:

a first variable wavelength light source for generating [[the]] a first variable wavelength light ~~, the wavelength of which is variable~~;

a first light modulating element [[means]] for introducing [[onto]] into said first optical transmission line [[the]] a first incident light obtained by modulating said first variable wavelength light with a [[by the]] frequency of a first electrical signal, wherein said first incident light exits from said first optical transmission line as a first outgoing light ~~signals inputted~~;

a first optical/electrical converting element [[means]] for converting, by [[the]] a first optical/electrical conversion process, the first outgoing light into a second electrical signal ~~having penetrated said first optical transmission line~~;

a second variable wavelength light source for generating [[the]] a second variable wavelength light ~~, the wavelength of which is variable~~;

a signal source for generating a reference electrical signal ~~signals of given frequencies~~;

a second light modulating element [[means]] for introducing into the second optical transmission line [[the]] a second incident light obtained by modulating said second variable wavelength light with ~~by the frequency of~~ said reference electrical ~~signals~~ signal, wherein said second incident light exits from said second optical transmission line as a second outgoing light;

and

a second optical/electrical converting element [[means]] for converting, by [[the]] a second optical/electrical conversion process, the second outgoing light into the first electrical signal ~~having penetrated said second optical transmission line~~ and for outputting the first electrical signal into ~~converted second outgoing light onto~~ said first light modulating element [[means]].

4. **(currently amended)** The optical characteristic measuring apparatus according to claim [[2]] 3, further comprising a third optical/electrical converting element [[means]] for converting, by [[the]] a third optical/electrical conversion process, [[the]] a reflected light, which is generated when said second light modulating element [[means]] introduces said second incident light into said second optical transmission line, into a third electrical signal.

5. **(currently amended)** The optical characteristic measuring apparatus according to claim [[1]] 3, further comprising:

a phase comparing element [[means]] for measuring [[the]] a phase difference between a phase of the second electrical signal output ~~signals for measurement outputted~~ by said first optical/electrical converting element [[means]] and a phase of said reference electrical ~~signals~~ signal; and

a characteristic computing element [[means]] for computing [[the]] a group delay characteristic or [[the]] a dispersion characteristic of the devices under test by using said phase difference.

6. **(currently amended)** The optical characteristic measuring apparatus according to claim 4, further comprising:

a phase comparing element [[means]] for measuring [[the]] a phase difference between a phase of the third electrical ~~signals~~ signal output ~~for reflection measurement outputted~~ by said third optical/electrical converting element [[means]] and a phase of said reference electrical ~~signals~~ signal; and

a characteristic computing element [[means]] for computing [[the]] a group delay

characteristic or [[the]] a dispersion characteristic of the devices under test by using said phase difference.

7-11. (canceled)

12. **(currently amended)** An optical characteristic measuring apparatus for measuring [[the]] characteristics of devices under test having [[the]] a first optical transmission line letting light through only in [[one]] a first direction and [[the]] a second optical transmission line letting light through only in [[the]] a second direction opposite to said [[one]] first direction, said apparatus comprising:

~~a first~~ an optical/electrical converting element [[means]] for converting, by [[the]] an optical/electrical conversion process, an ~~the first~~ outgoing light, which has ~~having~~ penetrated and exits from said first optical transmission line, into an electrical signal;

a ~~second~~ variable wavelength light source for generating [[the]] a ~~second~~ variable wavelength light ~~, the wavelength of which is variable~~;

a signal source for generating a reference electrical ~~signals~~ signal ~~of given frequencies~~; and

a ~~second~~ light modulating element [[means]] for introducing into said second optical transmission line ~~the second~~ an incident light obtained by modulating said ~~second~~ variable wavelength light with ~~by the frequency of~~ said reference electrical ~~signals~~ signal.

13-14. (canceled)

15. **(currently amended)** An optical characteristic measuring method [[for]] of measuring [[the]] characteristics of devices under test having [[the]] a first optical transmission line letting light through only in [[one]] a first direction and [[the]] a second optical transmission line letting light through only in [[the]] a second direction opposite to said [[one]] first direction, said method comprising:

~~a first variable wavelength light generating step for~~ generating [[the]] a first variable wavelength light ~~, the wavelength of which is variable~~;

~~a first light modulating step for~~ introducing into [[onto]] said first optical transmission line [[the]] a first incident light obtained by modulating said first variable wavelength light ~~by the frequency of~~ with a first electrical signal, wherein said first incident light ~~signals inputted~~ exits from said first optical transmission line as a first outgoing light;

~~a first optical/electrical converting step for~~ converting, by [[the]] a first optical/electrical conversion process, the first outgoing light ~~having penetrated said first optical transmission line~~ into a second electrical signal;

~~a second variable wavelength light generating step for~~ generating [[the]] a second variable wavelength light ~~, the wavelength of which is variable~~;

~~a signal generating step for~~ generating a reference electrical ~~signals~~ signal ~~of given frequencies~~;

~~a second light modulating step for~~ introducing into the second optical transmission line [[the]] a second incident light obtained by modulating said second variable wavelength light with ~~by the frequency of~~ said reference electrical ~~signals~~ signal, wherein said second incident light exits from said second optical transmission line as a second outgoing light; and

~~a second optical/electrical converting step for~~ converting, by [[the]] a second optical/electrical conversion process, the second outgoing light ~~having penetrated said second optical transmission line and for outputting~~ and using the converted second outgoing light as the first electrical signal in the ~~onto said first light modulating~~ step of modulating said first variable wavelength light to obtain the first incident light.

16-20. (canceled)

21. **(currently amended)** An optical characteristic measuring method [[for]] of measuring [[the]] characteristics of devices under test having [[the]] a first optical transmission line letting light through only in [[one]] a first direction and [[the]] a second optical transmission line letting light through only in [[the]] a second direction opposite to said [[one]] first direction, said method comprising:

~~a first optical/electrical converting step for~~ converting, by [[the]] an optical/electrical conversion process, [[the]] a first outgoing light, which has ~~having~~ penetrated and exits from said

first optical transmission line, into an electrical signal;

~~a second variable wavelength light generating step for~~ generating ~~the second~~ a variable wavelength light ~~, the wavelength of which is variable~~;

~~a signal generating step for~~ generating a reference electrical ~~signals~~ signal ~~of given frequencies~~;

~~a second light modulating step for~~ introducing into said second optical transmission line ~~the second~~ an incident light obtained by modulating said ~~second~~ variable wavelength light with ~~by the frequency of~~ said reference electrical ~~signals~~ signal.

22-23. (canceled)

24. **(currently amended)** A computer-readable medium having a program of instructions for execution by [[the]] a computer to perform an optical characteristic measuring process [[for]] of measuring [[the]] characteristics of devices under test having [[the]] a first optical transmission line letting light through only in [[one]] a first direction and [[the]] a second optical transmission line letting light through only in [[the]] a second direction opposite to said [[one]] first direction, said optical characteristic measuring process comprising:

a first variable wavelength light generating processing for generating [[the]] a first variable wavelength light ~~, the wavelength of which is variable~~;

a first light modulating processing for introducing [[onto]] into said first optical transmission line [[the]] a first incident light obtained by modulating said first variable wavelength light ~~by the frequency of~~ with a first electrical ~~signals inputted~~ signal, wherein the first incident light exits from said first optical transmission line as a first outgoing light;

a first optical/electrical converting processing for converting, by [[the]] a first optical/electrical conversion process, the first outgoing light ~~having penetrated said first optical transmission line~~ into a second electrical signal;

a second variable wavelength light generating processing for generating [[the]] a second variable wavelength light ~~, the wavelength of which is variable~~;

a signal generating processing for generating a reference electrical ~~signals~~ signal ~~of given frequencies~~;

a second light modulating processing for introducing into the second optical transmission line [[the]] a second incident light obtained by modulating said second variable wavelength light ~~by the frequency of~~ with said reference electrical ~~signals~~ signal, wherein the second incident light exits from said second optical transmission line as a second outgoing light; and

a second optical/electrical converting processing for converting, by [[the]] a second optical/electrical conversion process, the second outgoing light ~~having penetrated said second optical transmission line and for outputting~~ and using the converted second outgoing light as the first electrical signal in the ~~onto said first light modulating~~ step of modulating said first variable wavelength light to obtain the first incident light.

25-29. (canceled)

30. **(currently amended)** A computer-readable medium having a program of instructions for execution by [[the]] a computer to perform an optical characteristic measuring process [[for]] of measuring [[the]] characteristics of devices under test having [[the]] a first optical transmission line letting light through only in [[one]] a first direction and [[the]] a second optical transmission line letting light through only in [[the]] a second direction opposite to said [[one]] first direction, said optical characteristic measuring process comprising:

a first optical/electrical converting processing for converting, by [[the]] an optical/electrical conversion process, a [[the]] first outgoing light, which has ~~having~~ penetrated and exits from said first optical transmission line, into an electrical signal;

a second variable wavelength light generating processing for generating ~~the second~~ a variable wavelength light ~~, the wavelength of which is variable~~;

a signal generating processing for generating a reference electrical ~~signals~~ signal ~~of given frequencies~~;

a second light modulating processing for introducing into said second optical transmission line an ~~the second~~ incident light obtained by modulating said ~~second~~ variable wavelength light ~~by the frequency of~~ with said reference electrical ~~signals~~ signal.

31. **(new)** An optical characteristic measuring apparatus for measuring characteristics of devices under test having a first optical transmission line letting light through only in a first direction and a second optical transmission line letting light through only in a second direction opposite to said first direction, said apparatus comprising:

a first variable wavelength light source for generating a first variable wavelength light;

first light modulating means for introducing into said first optical transmission line a first incident light obtained by modulating said first variable wavelength light with a first electrical signal, wherein said first incident light exits from said first optical transmission line as a first outgoing light;

first optical/electrical converting means for converting, by a first optical/electrical conversion process, the first outgoing light into a second electrical signal;

a second variable wavelength light source for generating a second variable wavelength light;

a signal source for generating a reference electrical signal;

second light modulating means for introducing into the second optical transmission line a second incident light obtained by modulating said second variable wavelength light with said reference electrical signal, wherein said second incident light exits from said second optical transmission line as a second outgoing light; and

second optical/electrical converting means for converting, by a second optical/electrical conversion process, the second outgoing light into the first electrical signal and for outputting the first electrical signal into said first light modulating means.

32. **(new)** An optical characteristic measuring apparatus for measuring characteristics of devices under test having a first optical transmission line letting light through only in a first direction and a second optical transmission line letting light through only in a second direction opposite to said first direction, said apparatus comprising:

optical/electrical converting means for converting, by an optical/electrical conversion process, an outgoing light, which has penetrated and exits from said first optical transmission line, into an electrical signal;

a variable wavelength light source for generating a variable wavelength light;

a signal source for generating a reference electrical signal; and

light modulating means for introducing into said second optical transmission line an incident light obtained by modulating said variable wavelength light with said reference electrical signal.